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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,120	10/16/2003	Francisc Sandulescu	NEWT.P0104USA	7343
7590	03/28/2005		EXAMINER	
MARK C. JOHNSON Renner, Otto, Boisselle & Sklar, LLP Nineteenth Floor 1621 Euclid Avenue Cleveland, OH 44115-2191			PWU, JEFFREY C	
			ART UNIT	PAPER NUMBER
			2143	
			DATE MAILED: 03/28/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,120	SANDULESCU, FRANCISC	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeffrey Pwu	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 4/8/2004.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Abstract***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The present invention," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being unpatentable over Thornton (US 6,735,658).

Thornton discloses claims:

1. A USB extender for extending the distance between a host and a device, the USB extender comprising:  
a controller; (230;830)  
a host transceiver connectable to a USB host and configured to transmit to the USB host both standard USB commands and non-standard USB commands received from

the controller (1370, 1380; abstract, non-USB compliant protocol, such as Universal Serial Bus Extension (USBX) packets USBX"); a device transceiver connectable to a USB device and configured to receive both standard USB commands and non-standard USB commands from the USB device and to transmit the received USB commands to the controller; (1370, 1380) and wherein the controller is configured to determine the nature of the USB commands received at the device transceiver and to transmit determined commands to the host transceiver. (col.14, lines 39-53)

2. The USB extender of claim 1 wherein the host transceiver is further configured to receive USB commands from the host and to transmit the received USB commands to the controller. (col.14, lines 39-53)

3. The USB extender of claim 2 wherein the device transceiver is further configured to transmit to the device USB commands received from the controller. (col.14, lines 39- col.15, line 19)

4. The USB extender of claim 3 wherein the controller is further configured to determine the nature of the USB commands received at the host transceiver and to transmit determined commands to the device transceiver. (col.14, lines 39-col.15, line 19)

5. A USB extender for extending the distance between a host and a device, the USB

extender comprising: a host unit connectable to a USB host and configured to transmit to the host both standard USB commands and non-standard USB commands received from a device unit via a non-USB communications channel; a device unit connectable to a USB device and configured to receive both standard USB commands and non-standard USB commands from the USB device and transmit the received commands to the host unit via the non-USB communications channel; and a non-USB communications channel between the host unit and the device unit. (1370, 1380; abstract, non-USB compliant protocol, such as Universal Serial Bus Extension (USBX) packets USBX"; fig.13)

6. The USB extender of claim 5 wherein at least one non-standard USB command received by the device unit from the device is a Mac power-on command (col.9, line 65-col.10, line 29; "OHCI driver software"- The iBook computer uses an Open Host Controller Interface (OHCI) controller for USB communication)

7. The USB extender of claim 6 wherein the host unit comprises a host power status detector. (col.16, lines 25-38)

8. The USB extender of claim 7 wherein the USB extender is configured to maintain a voltage from the host to the USB device when the host is in a lower power mode and wherein the USB extender is configured to create a change in a maintained voltage when the device unit receives Mac power-on command. (col.9, line 65-col.10, line 29;

“OHCI driver software”- The iBook computer uses an Open Host Controller Interface (OHCI) controller for USB communication)

9. The USB extender of claim 8 wherein the maintained voltage is about 0.7 volts to about 1 volt. (col.16, lines 25-38)

10. The USB extender of claim 5 wherein at least one non-standard USB command received by the device unit from the device is a SUN power management command.

11. The USB extender of claim 5 wherein the host unit and device unit each comprise a USB to non-USB signal converter for converting USB signals to non-USB signals and a non-USB to USB signal converter for converting non-USB signals to USB signals. (see USBX)

12. The USB extender of claim 11 wherein the non-USB to USB signal converter and USB to non-USB signal converter are the same signal converter. (col.8, lines 3-col.10, line 20)

13. The USB extender of claim 5 wherein the host unit and device unit each comprise a voltage regulator for regulating voltage from the host to the USB device. (it is inherent that the USB device must include an on-board voltage regulator to regulate supply voltages)

14. The USB extender of claim 5 further comprising a hub for accepting USB commands from multiple USB devices. (604; 110)
15. The USB extender of claim 14 wherein a device unit controller is configured to determine the device from which the USB commands are received. (1240 & 1260)
16. The USB extender of claim 5 wherein the host unit is further configured to receive USB commands from a host and to transmit the received USB commands to the device unit via a non-USB communications channel. (col.8, lines 3-col.10, line 20)
17. The USB extender of claim 5 wherein the device unit is further configured to receive USB commands from a host unit via a non-USB communications channel and to transmit the received USB commands to the device. (col.8, lines 3-col.10, line 20)
18. The USB extender of claim 5 wherein the USB extender is compatible with at least one of USB 1.x and USB 2.x. (col.12, lines 18-55; "USB 1.0 & USB 2.0 protocols")
19. A method for extending the distance between a host and a Mac keyboard device that uses non-standard USB commands, the method comprising: detecting the host power status by a host unit; maintaining a voltage from the host to the keyboard when the host is powered down; receiving a USB command from the keyboard at a USB extender device unit; determining the nature of the command; coupling the maintained

voltage to ground upon determining that the host is powered down and the received command is a Mac power-on command; transmitting the received USB command from the USB extender device unit over a non-USB communications channel to a USB extender host unit; and transmitting the USB command received at the USB extender host unit to the host over a USB communications channel. (Claim 19 is similarly rejected as in claims 1 and 5)

20. The method of claim 16 further comprising responding to a request from a host with a not acknowledge command and sending the request to the USB device. (col.8, lines 3-col.10, line 20)

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Pwu whose telephone number is 571-272-6798.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



March 18, 2005

JEFFREY PWU  
PRIMARY EXAMINER